

Chameleon® Performance and Flexibility Redefined

ADAPT AND ADVANCE TO THE NEXT GENERATION

With performance speeds up to 25 Gbps+, Chameleon meets the demand for faster, smaller and more compact connector solutions. Chameleon delivers a new level of performance unlike any other platform connector on the market today.

Designed for fast time-to-market and greater simplicity, Chameleon has evolved into a highly adaptable connector solution. It sets a new standard for low profile BGA products with industry-leading flexibility, performance, and density in board-to-board applications. With stack heights from 6mm to 10mm in 1mm increments, pin counts from 40 to 500+, and pair counts from 16 to 160, Chameleon provides you with a ready platform to easily change and adapt to your design requirement.

Utilizing Chameleon, you can mix and match the pin field as determined by your design requirements. Chameleon's design allows you to achieve a taller stack height with minimal loss of performance. This is accomplished using an open pin field providing differential pair, single ended and power contacts. This configurable column design allows for flexibility in differential, single ended and power columns in 2 column increments. In addition, market proven standard configurations are available with the option for new stack heights and contact configuration available upon request.



TARGET MARKETS



With the use of our patented lossy dielectric, Chameleon provides an unmatched contact density of 0.70cm² per pair that still yields superior SI performance while offering the benefit of increased miniaturization.

FEATURES

- Delivers solid and proven 25 Gbps performance in real systems
- High Pair Count 16–150 Differential Pairs and High Density (0.70cm²/pr)
- Fast Time to Market
- Pin Field Flexibility
- End Block Guidance/Locating Keys
- Dedicated Power Segment included with Specific Configurations

BENEFITS

- Allows maximum bandwidth while maintaining signal integrity
- Unmatched density yields superior SI performance with use of patented lossy dielectric
- Standard configurations for 6 & 10mm stack heights for short lead time designs. Additional options available upon request
- Offers differential pair, single ended and power configurations customized to match your design/system requirements
- Enables blind mating as needed for optimized mezzanine applications
- Provides 2.5A/contact for maximum power support

TECHNICAL INFORMATION

MATERIAL

- Housing: Liquid crystal polymer, black
- Contact Base Metal: Copper alloy
- Vacuum Cap: Stainless steel
- Plating: Performance-based plating at separable interface; meets requirements of product specification.
- Solder Spheres: Lead Free

ELECTRICAL PERFORMANCE

- Current Rating:
 - Small Power Contacts: 1.0 Amp per contact
 - Large Power Contacts: up to 2.5 Amps per contact
- Contact Resistance:
 - Dielectric withstanding voltage: 750VAC (RMS)
 - Insulation Resistance: 1000M Ω

MECHANICAL PERFORMANCE

- Durability: 250 mating cycles
- Mating Force: 0.46N max per signal contact
- Unmating Force: 0.10N min per signal contact
- Contact Wipe: 1.5mm nominal

ENVIRONMENTAL

- In accordance with Telcordia GR-1217-CORE and EIA-364 standards

APPROVALS AND CERTIFICATIONS

- UL 94V-0 rating

SPECIFICATION

- Product Specification: TB-2304
- Application Specification: TB-2305

PACKAGING

- Tape and Reel

SIGNAL INTEGRITY PERFORMANCE

- Impedance: 100 Ω +/- 10% for 6mm to 10mm models
- Frequency Response:
 - Differential insertion loss > -0.1 dB up to 25GHz
 - Differential far end cross talk < -30dB up to 25Ghz
 - Differential near end cross talk < -30dB up to 25Ghz
- Insertion loss:
 - 6mm > -0.4dB up to 25Ghz
 - 10mm > -1dB up to 25Ghz

TARGET MARKETS/APPLICATIONS



Communication
Wireless infrastructure



Data



Industrial & Instrumentation

20 STANDARD CONFIGURATIONS – 6MM TO 10MM

Segment

Contact Load	Stack Height	Diff. Pair	Single Ended	Power	Total Pins
	6mm				
	-PCB	14	3	2	260
	-ALO	1	11	0	212
	-CEB	3	5	2	142
	-FCO	6	3	0	138
	-GKB	7	10	2	288
	-KHB	10	8	2	294
	-KKB	10	10	2	330
	-LOA	11	0	1	159
	-FCC	6	3	3	153
	-K00	10	0	0	140
	-OKO	0	10	0	180
	7mm				
	-SAB	16	1	2	252
	8mm				
	-KHB	10	8	2	294
	-SAB	16	1	2	252
	10mm				
	-PCB	14	3	2	260
-GKB	7	10	2	288	
-KDF	10	4	6	242	
-NCB	13	3	2	246	
-ECB	5	3	2	134	
-SAB	16	1	2	252	

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